

IN THE CLAIMS

For the convenience of the Examiner, all pending claims of the Application are reproduced below regardless of whether amended or not.

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36. (Currently Amended) An apparatus, comprising:  
a first ring network having a first optical carrier; and  
a second ring network having a second optical carrier, the first and second ring networks including:

a pair of nodes that comprise a first and a second node, the pair being coupled along the first and second optical carriers and being operable to manage a subset of wavelengths within a set of transmission wavelengths, the set of transmission wavelengths including more than one transmission wavelength such that one of the transmission wavelengths can be switched while other transmission wavelengths in the set are not switched, a selected one of the set of transmission wavelengths may be reserved on the first optical carrier during a normal operative condition and during a failure the selected wavelength is implemented on the first optical carrier, wherein the first and second nodes are further operable to communicate with each other and to communicate along a working path under the normal operative condition, the first and second nodes being further operable to communicate with each other along a protection path during the failure within a selected one of the first and second ring networks such that one or more optical signals are rerouted along the protection path during the failure, and wherein a response to a failure condition is executed on a channel level, ~~the first and second ring networks being coupled to an optical switch unit that~~ **wherein each of the first and second nodes** includes a plurality of transmitting and receiving transponders ~~including~~**including**:

a first transmitting transponder optically coupled to the first optical carrier,  
a second transmitting transponder optically coupled to the first optical carrier, and  
a third transmitting transponder optically coupled to the second optical carrier, the plurality of receiving transponders ~~including~~**including**:

a first receiving transponder optically coupled to the ~~first~~**second** optical carrier,

a second receiving transponder optically coupled to the ~~first~~**second** optical carrier, and a third receiving transponder optically coupled to the ~~second~~**first** optical carrier, and wherein, under the normal condition, optical switches **in an optical switch** are configured to connect an optical transmitter to the first transmitting transponder ~~and to the third transmitting transponder,~~

to connect the first receiving transponder to the third transmitting transponder,

to connect the second receiving transponder to an optical receiver, and

to connect the third receiving transponder to the ~~optical receiver and to the~~ second transmitting transponder.

37. (Previously Presented) The apparatus of Claim 36, wherein the first and second ring networks are operable to propagate one or more optical signals in one or more transmission channels included therein, the one or more transmission channels being defined by a set of wavelengths having a predetermined wavelength transmission band.

38. (Previously Presented) The apparatus of Claim 36, wherein the pair of nodes are operable to communicate optical data at first and second wavelengths.

39. (Previously Presented) The apparatus of Claim 38, wherein the working path utilizes the first wavelength for optical data propagation on the first ring network and the second wavelength for optical data propagation on the second ring network.

40. (Previously Presented) The apparatus of Claim 39, wherein the first wavelength is not used during a selected time interval on the second ring network for optical data propagation and the second wavelength is not used during a selected time interval on the first ring network for optical data propagation.

41. (Previously Presented) The apparatus of Claim 39, wherein the pair of nodes are operable to communicate optical data at a pair of generic wavelengths that define a logical ring that may include the working path that utilizes the first wavelength on the first ring network and the second wavelength on the second ring network.

42. (Previously Presented) The apparatus of Claim 38, wherein the protection path utilizes the first and second wavelengths to communicate optical data.

43. (Previously Presented) The apparatus of Claim 36, wherein the first and second nodes are operable to perform add/drop/bypass operations for one or more optical signals propagating along a selected one of the first and second ring networks.

44. (Previously Presented) The apparatus of Claim 36, wherein the first and second nodes are operable to perform an amplification operation for one or more optical signals propagating along a selected one of the first and second ring networks.

45. (Previously Presented) The apparatus of Claim 36, wherein the first and second nodes are operable to perform a regeneration operation for one or more optical signals propagating along a selected one of the first and second ring networks.

46. (Previously Presented) The apparatus of Claim 36, wherein the first and second ring networks define an optical transmission system that includes inner and outer ring networks that are operable to facilitate propagation of optical data in opposite directions.